ADAMSON[26] decides that they are developed "for purposes of aeration as shown by the great development of lacunar tissue." Both the horizontal and the vertical roots possess very loose cortical tissue with large lacunae, but most botanists would probably hesitate to pronounce upon the purpose of its development. The upright roots have well developed root caps, and possess no lenticels or other stem characters found in many pneumatophores.—GEO. D. FULLER.

Seed of Neuropteris.—In 1904 KIDSTON described the seed of *Neuropteris heterophylla*, which was said to be "as large as a hazelnut." Now the same investigator, associated with JONGMANS, has described[27] the seed of *N. obliqua* Brong., the specimens being in the Rijks Herbarium at Leyden. The seeds have the same general structure as those of *N. heterophylla*, but are about twice as large. This species of *Neuropteris* is also doubtless to be referred to the stem genus *Medullosa*.—J. M. C.

Root parasites.—MISS BENSON[28] has studied the structure of some haustoria on the roots of *Exocarpus* and *Thesium*, showing the nature of the penetration and connection with the roots of other plants. For a portion of the lignified elements of the haustoria the name "phloeotracheids" is suggested, and the investigator thinks they may act as a filter between the host and parasite, although the evidence that they have any such function does not seem to be at all convincing.—GEO. D. FULLER.

Calcium salts and fungi.—WEIR[29] concludes that soluble calcium salts are necessary to the complete development of higher fungi. *Coprinus plicatilis*, *C. papillatus*, *C. nivens*, and *C. ephemoides* showed little if any mycelial development, and no development of fruit heads or spores, when all the calcium present was in the form of the oxalate.—WILLIAM CROCKER.

A bog in central Illinois.—GATES[30] has instanced the meeting of northern and southern forms in a bog in central Illinois.—GEO. D. FULLER.

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[26] ADAMSON, R. S., Note on the roots of *Terminalia Arjuna*. New Phytol. **9**: 150–156. *figs. 3–7*. 1910.

[27] KIDSTON, R., and JONGMANS, W. J., Sur la fructification de *Neuropteris obliqua* Bgt. Archiv. Néerl. Sci. III. B. **1**:25, 26. *pl. 1*. 1911.

[28] BENSON, MARGARET, Root parasitism in *Exocarpus* (with comparative notes on the haustoria of *Thesium*). Ann. Botany **24**:667–677. *pl. 65. figs. 4*. 1910.

[29] WEIR, JAMES R., Benötigt der Pilz *Coprinus* Kalksalze zu seinen physiologischen Funktionen. Flora **103**:87–90. 1911.

[30] GATES, F. C., A bog in central Illinois. Torreya **11**:205–211. 1911.